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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,492	09/15/2003	Albert E. Ortega	CRX-106XC1	9209

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EXAMINER
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BUTLER, PATRICK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/662,492

**Applicant(s)**

ORTEGA, ALBERT E.

**Examiner**

Patrick Butler

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.  
4a) Of the above claim(s) 6-9, 21-23, 27 and 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-20, 24-26, and 28-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20031124&20040226
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-32, drawn to a process of making a spunbonded nonwoven, classified in class 264, various subclasses.
- II. Claim 33, drawn to a nonwoven, classified in class 442, subclass 414.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the nonwoven fabric can be made by melt-blowing.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with David Saliwanchik on May 3, 2005 a provisional election was made without traverse to prosecute the invention of group I, claims 1-32. Affirmation of this election must be made by applicant in replying to this Office action. Claim 33 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

**Further restriction is required under 35 U.S.C. 121:**

This application contains claims directed to the following patentably distinct species of the claimed invention: Different species of:

- A:     attenuation device, and
- B:     antistatic material.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species within each of the two groups (A and B) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claims 1, 17, and 29 appear to be generic.

During a telephone conversation with David Saliwanchik on 09 November 2005 a provisional election was made without traverse to prosecute the species "slot" for Group A, which was indicated to not be readable on all claims except 6 and 21, and to prosecute the species of antistatic agent in Claim 16 and 28, which was indicated to read on Claims 10 and 11 but not Claims 7-9, 22, or 23. Additionally, it is noted that Affirmation of this election must be made by applicant in replying to this Office action. Claims 6-9 and 21-23 (as well as Claim 27 by dependency on a withdrawn claim) are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trimble (U.S. Patent No. 5,397,413) in view of Tortora (Understanding Textiles, pages 401 and 402).

With respect to Claim 1, Trimble teaches a spunbonding process with the step of using a melt blend of a variety of polymer resins and mixtures thereof, extruding the material to form a plurality of filaments, directing the filaments through slot draw

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attenuator (attenuation device; drawing the filaments to orient them), forming a web, and bonding the filaments (see Fig. 1; specifically Ref. 13, F, 30, and 34; Abstract; col. 4, lines 60 through col. 5, line 3; col. 5, lines 49-54).

Trimble does not expressly teach adding anti-static agents to the blend.

Tortora teaches bicomponent fibers containing metal or carbon, which are antistatic agents (see page 401, forth paragraph, through page 402, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Tortora's antistatic metal or carbon in the composition of fibers taught by Trimble in order to produce fibers that decrease static buildup (see Tortora, page 401, paragraph 2).

With respect to Claim 2, Trimble teaches using polypropylene (see col. 8, lines 4-7).

Claims 1-5, 14, 15, 17-20, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie (U.S. Patent No. 5,783,503) in view of Tortora (*Understanding Textiles*, pages 153-157, 401, and 402).

With respect to Claim 1, Gillespie teaches producing a spunbond product (spunbond nonwoven fabric; bonding the filaments of the web) by originating filaments from a spinneret (extruding), attenuating and drawing the filaments through a slot draw apparatus, and depositing the filaments onto a collection surface to form a web (see Fig. 4; col. 3, lines 16-34 and col. 9, lines 18-26).

Gillespie does not expressly teach adding anti-static agents to the blend. However Gillespie does teach to incorporate into the polymer melt components to control electrical properties (see col. 5, lines 35-42).

Tortora teaches bicomponent fibers containing metal or carbon, which are antistatic agents (see page 401, forth paragraph, through page 402, line 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Tortora's antistatic metal or carbon in the composition of fibers taught by Gillespie in order to produce fibers that decrease static buildup (see Tortora, page 401, paragraph 2) and in order to control electrical properties (see Gillespie col. 5, lines 35-42).

With respect to Claims 2 and 4, Gillespie teaches using nylon, polyester, PE, PP, and PBT and combinations, which read on the claims (see Gillespie, col. 4, lines 66-col. 5, line 25).

With respect to Claim 3, Gillespie teaches using "nylon ... and copolymers thereof" (see col. 5, lines 5-8, which reads on the claim language "nylon copolymers," which meets the limitations of the claim.

Moreover, with respect to Claim 3, Tortora teaches that nylon 6 has a higher tenacity than nylon 6,6 (see page 156, *Strength* section). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select nylon 6 as the nylon to use in Gillespie in order to have greater tenacity.

With respect to Claim 5, Gillespie teaches using a slot draw apparatus (see col. 9, lines 18-25).

With respect to Claims 14 and 15, Gillespie teaches that at least about 5 percent of the surface area of each filament is and all filaments are made of a nylon polymer (see Fig. 3; see col. 5, line 66 through col. 6, line 4).

With respect to Claim 17, Gillespie teaches producing a spunbond product (spunbond nonwoven fabric; bonding the filaments of the web) by originating filaments from a spinneret using blends in separate extruders to form filament with one of the blends forming a portion of the surface of the filaments, attenuating and drawing the filaments through a slot draw apparatus, and depositing the filaments onto a collection surface to form a web (see Fig. 3 and 4; col. 3, lines 16-34; col. 5, line 66 through col. 6, line 9; col. 8, lines 8-19; and col. 9, lines 18-26).

With respect to Claim 18, Gillespie teaches using nylon, polyester, PE, PP, and PBT and combinations, which read on the claims (see Gillespie, col. 4, lines 66-col. 5, line 25).

With respect to Claim 19, Gillespie teaches using "nylon ... and copolymers thereof" (see col. 5, lines 5-8, which reads on the claim language "nylon copolymers," which meets the limitations of the claim).

Moreover, with respect to Claim 19, Tortora teaches that nylon 6 has a higher tenacity than nylon 6,6 (see page 156, *Strength* section). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select nylon 6 as the nylon to use in Gillespie in order to have greater tenacity.

With respect to Claim 20, Gillespie teaches using a slot draw apparatus (see col. 9, lines 18-25).



With respect to Claim 26, Gillespie teaches that at least about 5 percent of the surface area of each filament is made of a nylon polymer (see Fig. 3; see col. 5, line 66 through col. 6, line 4).

Claims 10-13, 16, 24, 25, 28, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie (U.S. Patent No. 5,783,503) in view of Tortora (*Understanding Textiles*, pages 153-157, 401, and 402) as applied to Claims 1 and 17, and further in view of Warburton (US Patent No. 4,081,383).

With respect to Claims 16 and 28, Gillespie and Tortora do teach using nylon (polycaprolactum) as previously described. However, they do not explicitly teach using a sulfonic acid, a C<sub>10</sub>-C<sub>18</sub> alkane, and sodium salts.

However, Warburton teaches using a copolymer that contains sodium salts (sodium salts) of dodecane-1-sulfonic acid (a C<sub>10</sub>-C<sub>18</sub> alkane and sulfonic acid) (see col. 4, line 60 through col. 5, line 6) and vinyl sulfonic acid (see col. 3, line 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Warburton's copolymer composition in the extrusion of Gillespie in view of Tortora in order to provide the product with better anti-soiling treatment, and to control the anti-soiling treatment's polymer particle size (see Abstract and col. 4, lines 60 and 61).

Applicant's claim language describes the agent as an antistatic agent. However, this agent is manifested in the composition claimed, which is met by the composition of Warburton. However, Warburton recognizes the benefit of the polymer in reducing static build-up (see col. 6, lines 34-37).

With respect to Claims 10 and 11, as applicant's elected antistatic of Claim 16 was indicated to read on Claims 10 and 11, then Claims 10 and 11 are rejected as described above with respect to Claim 16.

With respect to Claims 12, 13, 24, 25, 29, and 32, applicant's specification teaches that a composition of a polycaprolactum, sulfonic acid, a C<sub>10</sub>-C<sub>18</sub> alkane, and sodium salts added to a two polymer delivery results in 0.6 Kilovolts/inch when added at 1% concentration (see Specification, page 10, table 1).

As Warburton's composition teaches adding the sodium salts (sodium salts) of dodecane-1-sulfonic acid (a C<sub>10</sub>-C<sub>18</sub> alkane and sulfonic acid) is present from 0.5-8% (see col. 5, lines 47-49), the 1% concentration is taught. Therefore, Warburton's static would measure at less than one kilovolt principally because it teaches the same process and composition as applicant, which arrived at said static level.

With respect to Claims 30 and 31, Gillespie teaches that at least about 5 percent of the surface area of each filament is and all filaments are made of a nylon polymer (see Fig. 3; see col. 5, line 66 through col. 6, line 4).

Claims 10-13, 16, 24, 25, 28, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie (U.S. Patent No. 5,783,503) in view of Tortora (*Understanding Textiles*, pages 153-157, 401, and 402) as applied to Claims 1 and 17, and further in view of George (US Patent No. 4,167,464).

With respect to Claims 16 and 28, Gillespie and Tortora do teach using nylon (polycaprolactum) as previously described. However, they do not explicitly teach using a sulfonic acid, a C<sub>10</sub>-C<sub>18</sub> alkane, and sodium salts.

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However, George teaches using a copolymer that contains sodium salts (sodium salts) of dodecane-1-sulfonic acid (a C<sub>10</sub>-C<sub>18</sub> alkane and sulfonic acid) or octadecane-1-sulfonic acid (a C<sub>10</sub>-C<sub>18</sub> alkane and sulfonic acid) (see col. 4, line 65 through col. 5, line 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use George's copolymer composition in the extrusion of Gillespie in view of Tortora in order to provide the product with better degree of absorption of water and body fluids (see Abstract; col. 1, lines 46-49; and col. 6, lines 42-59).

Applicant's claim language describes the agent as an antistatic agent. However, this agent is manifested in the composition claimed, which is met by the composition of George.

With respect to Claims 10 and 11, as applicant's elected antistatic of Claim 16 was indicated to read on Claims 10 and 11, then Claims 10 and 11 are rejected as described above with respect to Claim 16.

With respect to Claims 12, 13, 24, 25, 29, and 32, applicant's specification teaches that a composition of a polycaprolactum, sulfonic acid, a C<sub>10</sub>-C<sub>18</sub> alkane, and sodium salts added to a two polymer delivery results in 0.6 Kilovolts/inch when added at 1% concentration (see Specification, page 10, table 1).

As George's composition teaches adding the sodium salts (sodium salts) of dodecane-1-sulfonic acid (a C<sub>10</sub>-C<sub>18</sub> alkane and sulfonic acid) is present from 0.01-5% (see col. 5, lines 47-49), the 1% concentration is taught. Therefore, George's static

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would measure at less than one kilovolt principally because it teaches the same process and composition as applicant, which arrived at said static level.

With respect to Claims 30 and 31, Gillespie teaches that at least about 5 percent of the surface area of each filament is and all filaments are made of a nylon polymer (see Fig. 3; see col. 5, line 66 through col. 6, line 4).


### ***Conclusion***

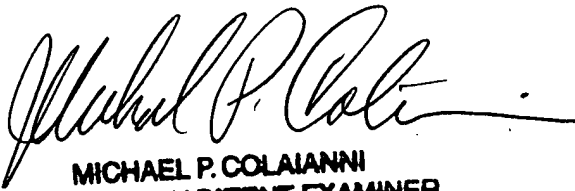
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is 571-272-8517. The examiner can normally be reached on Monday through Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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Art Unit 1732

  
**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**